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RESEARCH ABSTRACTS

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The CARDINAL STRITCH COLLEGE
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RESEARCH
ABSTRACTS

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FOREWORD

The abstracts in this publication represent studies completed in 1962 by twenty-three graduate students who fulfilled requirements for the master's degree in education granted by The Cardinal Stritch College, a liberal arts college conducted by the Sisters of St. Francis of Assisi. Eighteen of the studies are concerned with problems in the teaching of reading and five with education of the mentally handicapped. This volume is the fourth in a series of RESEARCH ABSTRACTS published by the college.

The original copies of the studies can be obtained through inter-library loan service from The Cardinal Stritch College Library. Titles are also listed in Master's Theses in Education, Research Publications of Iowa State Teachers College, Cedar Falls, Iowa.

Sister M. Camille, O.S.F., Ph.D.
Editor

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The Effect of Specific Training in the SQ3R Method of Study on the Achievement of History and the Improvement of Reading Comprehension of Fifth Grade Pupils

Sister Mary Paulina Clary, R.S.M.

PROBLEM. This study was undertaken to give training in the use of the systematic study-skill called the SQ3R Method of Study in the teaching of history, and to evaluate the results of such training on achievement in history and on the improvement of general reading comprehension.

The study grew out of the observation that children of the intermediate grades experience difficulty in adjusting to the content of the social studies area. As a result of this awareness, the writer conducted a study as to the value of additional instruction in history through the SQ3R Method of Study, and its relationship to the improvement of general reading comprehension. This investigation included the following questions:

1. Will intense training in this systematic reading-study skill result in a significant improvement in history achievement?

2. Will there be a transfer of training resulting in an improvement of general reading comprehension?

3. Would the results be sufficient to warrant the incorporation of this method of instruction into the regular program?

4. Would all the children benefit from this intensive program?

Survey of the literature revealed the fact that very little experimentation had been carried on with the SQ3R Method of Study.

PROCEDURE. Seventy-nine pupils of two parochial schools were chosen for the study. To establish criteria for the selection of a control group and an experimental group, standardized intelligence tests, history achievement tests, and general reading comprehension tests were administered, as follows: Kuhlmann-Anderson Intelligence Test, National Achievement Test—History and Civics, and Gates Reading Test. Analysis of test results showed no significant difference between the groups in the factors mentioned.

The control group was given instruction based on the history reading manuals, while the experimental group followed the instruction of the manual in reading but was given specific training in the SQ3R Method of Study in the content subject of history. At the end of the experimental period a second form of the history and of the reading test were administered and results were tabulated for comparative study and interpretation.

The following is an example of how each unit in history was presented:

A. Survey of the history unit: "Glance over the headings in the chapter to see the few big points which will be developed." This was done independently, although the teacher often called attention to some particular item. "If the chapter has a final summary paragraph this will also list the ideas to be developed in the unit." This step is comparable to the readiness approach to a learning activity.

B. Formation of directive questions: List the paragraph headings on the board. As a class the pupils turned these headings into comprehensive questions. At first, practice was necessary to elicit questions which necessitated a comprehensive answer. The questions made important points stand out while the explanatory detail was recognized as such. This aroused curiosity and thus increased comprehension.

C. "Read to answer your question." The paragraph was read to the end of the first headed section. This was not a passive plowing along each line but an active search for the answer. The pertinent information sought was located and was read aloud.

D. "Recite the answer to question." The information having been located, the pupil attempted to answer the lead question in his own words. The insistence on answering the question, instead of the tendency to go on, made it easier to motivate the child to read with an active inquiring attitude.

E. "Review the unit by looking over sub-headings." Questions previously formulated are answered at this point. In this way information not firmly fixed in the mind will be mastered.

F. Conclusion. Steps two, three, and four are repeated with each succeeding heading section. Cue phrases from each section are jotted down.

FINDINGS. From analysis of the data the following findings were reported:

1. History achievement was significantly increased as a result of a more intensive training in the reading-study skill, SQ3R Method of Study, with the fifth grade.

2. The gains made by the experimental group were of such significance as to warrant the incorporation of this instruction into the regular history class.

3. The study of gains in history achievement made by pupils at different levels of mental ability indicated that all children, irrespective of mental ability level, might benefit by a similar intensive program in history.

4. Although gains made by the experimental group in history achievement were highly significant, the gains made in the improvement of reading were not statistically significant. This would indicate that there was a lack of transfer of training of the study skill acquired through the SQ3R Method of Study for gaining knowledge in history to a general understanding of a reading selection as tested in the reading test used in this experiment.

SUMMARY AND CONCLUSIONS. This investigation demonstrated the desirability of providing additional instruction in the study skills in the teaching of content subjects in order that pupils, as a result of receiving this training, would improve those skills required for reference work now so necessary in following modern school curricula. This study gave evidence of the fact that special instruction in study skills can be given in the content areas without additional class time or additional expenditure for instruction, and without any change in the regular departmental organization of classes of fifth grade pupils. The difference in achievement indicated need for consciously planned practice in these specific skills used by the pupils of the fifth grade in the content areas. Instruction in the content areas carries the burden of teaching the child to differentiate his reading abilities to meet the specialized demands of the subject-matter fields. The child learns to adjust his reading and study habits to the requirements inherent in the materials of each content subject.

The Effect of Reading Instruction and Further Education upon the Intelligence Quotient as Measured by the Wechsler-Bellevue Scale

William J. Coyne

PROBLEM. The underlying problem of this dissertation was the determination of the effect of clinical reading instruction and further education upon the intelligence quotient five or more years following the completion of reading courses. Only the broad categories of total reading efficiency and education were considered without regard for the individual variables within these two categories.

PROCEDURE. The population involved in this study consisted of 25 former students at the Cardinal Cushing Educational Clinic, Boston, Massachusetts, who had attended one or more sessions of reading instruction between 1954 and 1956. The students were selected from the passive clinical files of the clinic by consultation with the Director of the clinic and in accordance with established criteria as follows:

1. The student must have shown improvement in reading, following the period of instruction, by achieving on his grade level or higher as measured by the California Reading Test.

2. The student must have had an initial intelligence quotient of 90 or higher.

3. The student must have been on the junior high school level of education or higher.

4. Both sexes were included.

5. A time lapse of five years following the reading instruction must have occurred.

6. All races were to be considered. (Only those who were white met the criteria.)

7. Initially, the Wechsler-Bellevue Intelligence Scale must have been administered to the student.

Some 140 students out of 800 met the criteria and of these a total of 28 responded with 25 finally selected on the basis of Full Scale test scores. This population consisted of 15 young men and 10 young women.

The raw data from the students' test booklets of the Wechsler-Bellevue Intelligence Scale and from the test sheets of the California Reading Test were assembled, after which the final test on the Wechsler-Bellevue Scale was administered.

The Chi-square technique was applied to the Wechsler-Bellevue initial Full Scale scores, indicating the normality of the distribution. Comparisons were made of initial and final weighted scores on each sub-test of the Wechsler Scale including the weighted and IQ scores on the three individual scales, initial and final total reading grade scores of the reading test, gain in reading grade scores, and gain in Full Scale IQ points. The t-test was applied to the total reading grade scores and to all the sub-tests and total scale scores on the Wechsler Scale to determine the significance of differences.

FINDINGS. Differences between first and final testing on Verbal, Performance, and Full Scale Scores, the Block Design and Digit Symbol tests, and all the Verbal Scale sub-tests except Comprehension, were statistically significant at the .001 level of confidence. Those for the Picture Completion, Picture Arrangement, and Object Assembly tests were significant at the .01 level of confidence.

It was concluded that chance factors alone could not have accounted for this marked improvement in intellectual growth on the part of these young people but that this growth continued from early adolescence into early adulthood with the aid of the variables of clinical reading instruction and further education. Table 1 shows the results on the three total scales.

TABLE 1

CORRELATIONS BETWEEN THE FINAL AND INITIAL TEST WEIGHTED SCORES AND THE t-VALUES OBTAINED FROM THE MEAN WEIGHTED GAINS MADE BY THE TRIAL POPULATION ON VERBAL, PERFORMANCE, AND FULL SCALES OF THE WECHSLER-BELLEVUE INTELLIGENCE SCALE

Scale	Test	Mean	S.D.	S.E.$_M$	Diff.	S.E.$_D$	t-value	Confidence Level
Verbal Scale r=.75±.08	Final Initial	61.76 50.12	6.98 6.46	1.42 1.32	11.64	.89	13.079	.001
Performance Scale r=.62±.13	Final Initial	64.92 51.64	6.97 7.40	1.42 1.51	13.28	1.28	10.375	.001
Full Scale r=.75±.09	Final Initial	127.08 101.96	12.59 11.31	2.57 2.31	25.12	1.74	14.437	.001

The test of Comprehension showed neither gain nor loss. Total reading gains were statistically significant at the .01 level of confidence. By comparison of statistical data, it was revealed that the average student of this study was one who had finished three semesters of clinical reading instruction, had improved two full grades in reading achievement, and had completed ten additional semesters of education with the end result of an increment of eleven points in Full Scale IQ score.

SUMMARY AND CONCLUSIONS. The 25 young people of this sample, selected at random and fully representative of a normal distribution according to Chi-square, experienced definite growth in mental capacity from early adolescence to early adulthood at a time when they were being given formal reading instruction and continued education. Earlier studies have shown a marked relationship between reading and intelligence. This study substantiates the pronounced enrichment which reading instruction and education can produce on the intelligence quotient over a span of years and during the critical adolescent period. This study noted a mean improvement of 11.72 Full Scale IQ points that was statistically significant at the .001 level of confidence.

The Movements Which Gave Impetus to the Emphasis on Reading

Sister Mary Coletta Feldman, B.V.M.

PROBLEM. From general observation of the educational world, one would conclude that interest in reading has soared tremendously during the last decades. The purpose of this study was to verify this observation and to determine, if possible, what movements led to this increased interest.

PROCEDURE. The observation was verified by tracing the increased attention given to reading in educational literature, in collegiate courses, through the establishment of reading clinics, and by noting the increasing significance attached to reading in both the elementary and secondary schools.

After study of government documents, periodicals, books, and other materials, the writer determined to study the movements which helped to bring about increased interest and emphasis on reading under socio-economic influences and under scientific movements. The socio-economic factors considered in this study included the greater need for functional literacy in modern life, the effects of compulsory education and child labor laws on the need for expanded reading courses and better reading methods, and the impact of the two world wars on the emphasis on reading. Other factors considered in this study were the effect of the testing movement and the study of psychology as related to reading.

FINDINGS. Modern economic, social, and occupational life does demand greater reading power. The interdependence of today's economy which involves a complex technology has imposed the problem of universal education and has made a higher degree of literacy imperative. Furthermore, the changed economy has brought about social changes, among which is an increased amount of leisure together with inventions which help occupy this leisure. In the face of this, mature interests and ennobling ideals should be fostered by elevating reading. Because today's socio-economic world demands not only efficient, critical, and elevating reading, but also rapid reading, educators have faced the problem of rate which has led to the invention of various tachistoscopic and speed machines and to the introduction of speed courses in schools and colleges.

As the country grew in population and industrial efficiency it became increasingly important that the state governments enact legislation to help young Americans receive educational advantages. One state after another met this necessity until all states now have statutes which require regular school attendance and regulate child labor. This has resulted in a greater heterogeneity of school population, which in turn requires provisions for the type of child who had formerly dropped out of school at an early age. Education leaders soon realized that this called for a revision of curricula and a flexibility of methods, especially in regard to reading. More and more schools are now approaching the problem on a professional basis through special reading programs.

The world wars gave considerable impetus to the emphasis on reading, chiefly because the testing programs of each disclosed a state of illiteracy which startled the nation. The second world war rejected a million men because of lack of education, a fact which led the defense department itself to set up a reading program. Leaders in the field of reading took up the challenge to reduce illiteracy and strove seriously to meet the problem. Because of the larger retention of youth in high schools this problem consisted largely in an all-out effort to bring sound methods of developmental reading into more secondary schools.

The testing movement helped to measure the progress and shape the emphasis in the teaching of reading. The Alpha Army Test proved to have a directional impact upon the concept of group testing which was soon carried into the field of educational testing and very particularly into the silent reading test. Educators adapted the idea of testing to serve as a basis for diagnosis which, together with mental testing, led to specially planned reading programs. Following the idea of diagnosis, and in harmony with the psychological principles of child development, educators devised reading readiness tests aimed at the measurement of certain aspects of maturity as a gauge for predicting readiness to read. As a result, the concept of readiness came to be considered a vital element of every reading lesson.

Psychology has given a significant and widespread energizing power to the emphasis on reading. With the increasing knowledge of child development, psychologists began to collate the principles of child development with stages of reading. From that came the idea of continuous gradual development of reading power according to individual capacity. The psychological principles of experience and interest were recognized as vital elements for success in reading: therefore, modern reading programs are geared to utilize and develop these elements. Because psychology has demonstrated that emotions and personality adjustment react upon success in reading, methods designed to remove and prevent the frustration of failure are advocated. The psychology of perception, with its diverging theories, is recognized as playing an essential role in the development of reading power and has aroused the general public to place emphasis on reading method. More recently, psychologists are placing greater emphasis on the higher mental processes than early psychologists were wont to do. This is reflected in the stress on reading for meaning. Recent publications about reading skills bring out the present emphasis on semantics. In general, the development and acceptance of psychological principles have contributed greatly to the increased emphasis on reading and are reflected in every phase of it.

SUMMARY AND CONCLUSIONS. Interrelationships between socio-economic and scientific movements were cited as having given impetus to the emphasis on reading. Socio-economic changes have brought about the need for this stress while the advances in science have provided the "know how" to fulfill the obligations thus imposed upon the school.

The reading teacher now knows more about the nature of reading, that it requires sequential development according to the maturity of the reader. The value of experience and of a systematic building of skills to provide readiness for each successive level of reading is recognized. The need of periodic appraisal and readjustment to meet individual learning rates is considered essential for continuous growth and development. There is considerable stress on the end product of reading, the integration of thought patterns. There is regard for occupational efficiency, for appreciation and enjoyment, for upholding ideals of citizenship, and for true moral courage.

An Experimental Study of the Effect of Intensive Teaching in the Development of Certain Study Skills on the Reading Improvement of Seventh Grade Pupils

Sister Mary Estellyn Ganley, C.S.J.

PROBLEM. The purpose of this investigation was to ascertain the effect which training in specific study skills would produce on the reading ability of seventh grade pupils and to measure the improvement in these specific study skills. Pertinent questions were formulated as follows:

1. Will the development of certain study skills at the junior high school level show a substantial increase in reading ability?

2. Is there a meaningful relationship between the abilities properly called "study skills" and reading comprehension?

3. Do pupils benefit by planned instruction in these specific techniques?

PROCEDURE. The population consisted of 80 students from one parochial school in the Boston Archdiocesan School system. One class of 40 pupils constituted the experimental group while an equal number from another class comprised the control group.

Following the preliminary testing of both groups for mental age, total reading, vocabulary, comprehension, and study skills, the equivalency of the groups was established by application of the t-test formula. The Chi-square technique applied to mental age scores indicated that the groups represented a normal distribution.

Specifically chosen exercises from various carefully examined sources comprised the instructional material. The study skills under discussion were three: (1) locating information;

(2) reading graphic and tabular material; (3) outlining and summarizing.

The experiment was conducted over a period of three months, the time allotment being 30 minutes daily, which was the regular reading period. The control group pursued the usual reading lesson, but did not receive instruction in study skills.

The measurements used were the California Short-Form Test of Mental Maturity, the California Reading Test, and the SRA Achievement Series, Work-Study Skills. Alternate forms of the latter two tests supplied information pertinent to degree of growth from initial to final testing.

FINDINGS. Achievement data showed that although slight differences were found in total reading, vocabulary, and comprehension in favor of the experimental group, they were insufficient to be statistically significant.

Study skills test results revealed gains sufficient to be statistically significant at the .01 level of confidence. References, the first subscore analyzed, exhibited a mean gain of 1.33 in favor of the experimental group, with a t-ratio of 3.47. The experimental mean grade score was 10.11 while the control group scored 8.68.

The second subscore, charts, showed a mean difference of .92 for the experimental over the control group. The former mean score was 9.48; the latter, 8.56. A t-ratio of 2.19 was attained, which showed significance at the .05 level of confidence.

A difference of .53 between the means for the reference subtest of the reading tests, though not statistically significant, closely approximated significance with a t-ratio of 1.91. The data of the experimental group yielded a mean score of 9.78; test data of the control group resulted in a score of 9.25.

Further analysis of results depicting progress indicated significant differences in all six tests between the initial and final testing for the experimental group, the greatest gain being made in references. While progress was also made by the control group, a comparison of test results revealed greater growth for the experimental group in all tests, with the exception of vocabulary.

SUMMARY AND CONCLUSIONS. In the light of the evidence presented, and within the limitations of this study, the following conclusions seemed to be justified:

1. Specific training in certain study skills did not significantly affect total reading improvement of this sample population at the seventh grade level.

2. These seventh graders did not make appreciable progress in reading vocabulary by specific training in study skills.

3. Reading comprehension of this seventh grade sample population did not appear to improve significantly through instruction in study skills.

4. Lessons given to the experimental group in reference skills produced statistically significant growth in these specific techniques.

5. These pupils derived significant benefit from concentrated drill on the use of maps, tables, charts, and graphs.

6. Test results of pupils indicated considerable gains on the reference section of the reading test. Although the t-ratio was not sufficiently high to show statistically significant difference, yet the t-value approximated significance (1.91). By observation it seemed logical to conclude that pupils profited herein.

An Experimental Study of the Value of Using a Simplified Version of a Sixth Grade History Text with Retarded Readers

Sister Mary Rose Imelda Gilpatrick, C.S.J.

PROBLEM. The problem of this study was to determine the value of a simplified version of the history text material for retarded readers who were somewhat limited in ability. The specific objective was to discover if children, using a simplified version of a history text, would make greater progress in acquiring knowledge of history than children of equal ability using the regular version of the same history text.

Answers were sought to the following questions: (1) Will there be a significant difference in gains in reading achievement after being exposed to less frustrating material for half of the units during an eight-month period? (2) Can all the necessary concepts developed in a sixth grade history text be reduced to a high-second, low-third grade readability? (3) Will the gains in history concepts favor the experimental group in the institution for dependent children or the group of children from a normal background and environment?

Regularly, the writer was confronted with groups of children varying greatly in ability. In studying the history text it was found to be on the average sixth grade level of readability. Therefore, the writer determined to discover what could be done to give the retarded pupil, with low level reading power, material within his level of understanding and reading power on the hypothesis that he would make greater progress if he had readable materials.

PROCEDURE. This study was restricted to two groups of children, ten children in each group. One group lived in an institution for dependent children. The other group consisted of children from normal backgrounds who attended their parish school. Both groups of children were experiencing difficulty in reading. The study was carried out for eight months to determine the value of using the simplified version of the text and by two different teachers. Certain limiting factors, beyond the control of the writer, were: (1) The added incentives of maps, graphs, and pictures were not as accessible when children were using the mimeographed simplified version even though the children were encouraged throughout the study to use these media of learning. (2) The duplication of materials for children using the simplified version could not completely follow the physical readability requirements used by publishers because it was necessary to use ditto copies. (3) The somewhat low intellectual level of some of the children accounted for mental as well as reading retardation. (4) The degree of maladjustment in both groups due to both severe reading retardation and to emotional problems resulting from background experience did not come within the scope of this experiment but could have been an important factor affecting the results.

The sixth grade class of a parochial school in Edgewater, New Jersey, constituted the experimental group; the sixth grade class of Mother Evangelista School, located in St. Joseph's Village for Dependent Children, constituted the other group studied. Preliminary tests of mental ability, the Revised Stanford-Binet, Form L, were administered to all the children along with tests of reading ability, the Gates Reading Survey, Form 1, to determine the initial status of each child in these areas.

Statistical evaluation was used to determine the comparability of the two groups. Because of the small number of children in both classes there were only ten children in each group. The ten institutional children were called Group A. The ten parish school children were called Group B. The rotation-group technique was employed, whereby the two groups rotated in using the simplified and regular versions of the text, one group studying the regular edition for odd-numbered units and the simplified edition for the even-numbered units. The other group used the simplified version for odd-numbered units and the regular edition for even-numbered units. The sixth grade text, Before Our Nation Began (New York: W. H. Sadlier, Inc., 1953) was re-written on a high-second, low-third grade level of readability by the writer and lesson plans were developed accordingly to be used by both teachers in the study. All the children in both sixth grades were given the same test at the end of each unit. After eight months a final reading test, The Gates Reading Test, Form 2, was administered to measure the comparable gains in reading.

FINDINGS. Results of the four unit tests, using the rotation-group technique, showed that the mean score was always in favor of the group using the regular edition of the text. However, none of the differences were significant at either the .01 or .05 levels of confidence and did not justify rejection of the null hypothesis, which stated that there is no significant difference between teaching history by use of a simplified text and teaching it by use of the regular text in the case of retarded readers.

In Group A there were six children who were below the expected reading level according to their mental ability and grade. Four pupils made only a few months' improvement in reading during the experiment, while six made from nine months to one year six months' improvement in reading.

In Group B there were only two pupils below the expected reading level according to their mental ability and grade. However, it is of note that four pupils regressed in reading one or two months; two pupils improved three and seven months, respectively; one made the expected eight months' improvement; and only three made from one year to one year eight months' improvement.

SUMMARY AND CONCLUSIONS. A study of the results led to the following conclusions within the limitations of this study:

1. During the eight-month experiment, the retarded readers in the two schools did not make greater progress using a text within their own power of reading than by using the regular text.

2. The means of all the tests showed greater progress after using the regular edition of the text, but not so great as to be statistically significant.

3. It was possible to teach the essentials of sixth grade history in a simplified version.

4. From observation the teachers noticed that the children seemed happier using material within their reading power. They participated readily in class discussions. Since greater interest was evident under these conditions, further study of the problem seems desirable.

5. No appreciable gains were made in reading except those that came from normal maturation.

Within the limitations of this study, it was concluded that there was no significant difference between teaching history by using the simplified text and teaching it by using the regular text in the case of retarded readers.

This investigation prompted the writer to suggest further experimentation regarding the following: (1) What effect would the simplified version method have on retarded readers if the material was in the same colorful type of text, having the excellent topography that is noted in the regular text? (2) What would be the result of the simplified version method with retarded readers if the sampling population were larger? (3) In this study the severely retarded readers were also slow mentally. Would the results be different for children of average and superior ability who are retarded readers? (4) Would the results of a similar study be different if the reading difficulty of the test questions was also simplified to conform to the same readability level of the content in the simplified version?

The Effect of Teaching English According to Treanor's Method on the Improvement of General Reading Achievement of Fourth Grade Pupils

Sister M. Melrose Hajduk, C.S.B.

PROBLEM. The purpose of this study was to determine whether or not the use of Treanor's Course of Study in teaching English had greater effect on the improvement of general reading achievement of fourth grade pupils than did the teaching of English according to the Washington Course of Study. The writer attempted to determine the extent of growth in reading power when emphasis was placed on such factors as: assimilation of ideas through the five senses with the aim of getting pupils to think, broadening of vocabulary through generic and specific words, study of a variety of noun and verb phrases to aid in construction of original sentences, and study and practice in writing a variety of sentences in preparation for the final step, namely, the writing of paragraphs.

PROCEDURE. Eighty students, randomly chosen from two fourth grades in a private suburban school in Rockville, Maryland, constituted the sample population involved in the study. The experimental group comprised 40 pupils, 16 boys and 24 girls, and the control group comprised 40 pupils, 22 boys and 18 girls.

The following tests were administered prior to the commencement of the experimental period: Scholastic Mental Ability Test, Form B; Scholastic Diagnostic Reading Test, Form A; and the Scholastic English Achievement Test, Form A.

The experimental and control groups were equated on the basis of mental age, initial total reading grade scores, initial reading comprehension grade scores, and initial raw scores in English. The group exhibited great variability in mental age, ranging from 7-4 to 13-4, with a mean of 9-7. With reference to initial achievement, there was likewise great variability evident, the range of initial reading grade scores being 3.0 to 8.0 with a mean grade score of 5.07, and the range of initial raw scores in English being 41 to 109 with a mean raw score of 82.0.

Pupils of the experimental and of the control groups received reading instruction on their respective instructional reading levels, according to individual differences of pupils. All groups were taught by the same teacher, the writer, following procedures suggested in the manuals of the Scott Foresman and the Ginn Basic Readers. The former series was used with the average and high ability and achievement groups, while the Ginn and Company series was used with the groups having low ability and low reading achievement.

The same teacher, the writer, taught English to both the experimental and control groups. The Treanor Course of Study was used with the experimental group and the Washington Course of Study with the control group. With reference to content these two courses of study are similar in the study of sentences and paragraphs, the treatment of formal grammar and diagrams, and in technicalities. The Treanor Course of Study, however, gives greater stress to:

1. Development of ideas through the five senses.
2. Vocabulary, through the use of generic and specific words, aided by the use of the Thesaurus and Dictionary.
3. Study of phrases through models and imitations.
4. Speech habits.

Both groups had a daily thirty-five minute period of English instruction, but according to the Treanor Course, the experimental group received more detailed specific practice in skills, as exemplified by the explanation of letter writing. In the early part of the year, the entire period was allotted for thorough explanation and practice in letter writing as well as for the initial explanation of other factors studied. Applied writing consisted of a daily one-sentence letter in the early part of the year. After the midterm, three letters per week were required. Every fourth week, pupils were given the opportunity to apply what they learned by writing original sentences and paragraphs.

At the close of the experimental period, second forms of both the Scholastic Diagnostic Reading Test, Form B, and the Scholastic English Achievement Test, Form B, were administered, and data were assembled for comparative study of achievement in reading skills.

FINDINGS. Since the experimental and control groups were equal or comparable with reference to initial learning ability and to initial reading and English achievement, a significant difference between the reading grade scores and English scores of the experimental and control groups at the close of the experiment would indicate that the introduced variable, the Treanor Method of Composition Work, was more effective in the growth of general and specific reading skills than was the Washington Course of Study.

The differences between mean grade scores of the experimental and control groups for total reading achievement was .09 in favor of the control group, which difference resulted in a t-ratio of .346, not statistically significant. The difference between mean grade scores for reading comprehension was .16 in favor of the experimental group, which difference, however, was not statistically significant at the .05 level of confidence.

A comparative study of progress in reading and English skills made by the experimental and control groups during the five-month experimental period evidenced statistically significant progress by both groups in all skills. When considering progress made in reading comprehension skills, the experimental group made greater progress than did the control group, the respective mean differences being .45 and .36.

SUMMARY AND CONCLUSIONS. Analysis of data seemed to justify the following conclusions:

1. The teaching of English according to the Treanor Method, as well as the Washington Course of Study, resulted in statistically significant progress in reading skills since the differences

between mean scores on the final and initial achievement tests of the experimental and control groups were statistically significant at the .01 level of confidence. However, the teaching of English by the Treanor Method was not found superior to the teaching of English by the Washington Course of Study. Data revealed the experimental and control groups to be equivalent in learning potential and in initial reading and English achievement at the beginning of the experimental period. Data at the end of the experimental period evidenced no statistically significant difference between the experimental and control groups in reading and in English achievement.

2. Both the experimental and control groups made statistically significant progress in comprehension skills; however, the Treanor Method did not seem to be superior to the Washington Course of Study for the improvement of reading comprehension skills since the growth in these skills seemed to be comparable.

3. Comparison of the results obtained from the final test in English at the end of the experimental period revealed the mean difference between the experimental and control groups in English achievement as not statistically significant. Data showed statistically significant progress by both groups using the two methods of teaching English; however, the progress made by the Treanor Method group exceeded that made by the Washington Method group.

The Effect of Concentrated Training in the Selection of Main Ideas and Sequence of Ideas on the Reading Achievement of Grade Four Pupils

Sister M. Pasqualina Helinski, C.S.J.

PROBLEM. The purpose of this research study was to determine whether specific training in selecting main ideas and organizing ideas in sequence would affect the reading achievement of fourth graders.

Specific questions investigated were: (1) Will concentrated training in these skills yield a greater understanding of printed material? (2) Will training in these skills show as much improvement in reading vocabulary as in comprehension?

PROCEDURE. The population consisted of 86 boys and girls from one parochial school in the Archdiocese of Boston. Forty-two pupils constituted the experimental group and were taught by the investigator, while 44 pupils were in the control group and were taught by their own teacher. The experience of the teachers, the time allotted to reading, and the choice of basic readers were held constant for both groups. The experimental group, however, was given specific training in "main idea" and "sequence of idea" skills during reading periods, while the control group was not given such training.

At the beginning of the experimental period, the Kuhlmann-Anderson Intelligence Test and the California Reading Test were administered to determine mental ages, and initial reading ability of both groups. Computation of the t-ratio evidenced that the groups were equivalent with reference to mental ages and initial reading achievement.

Computation of Chi-square confirmed normalcy of the sample population. At the close of the experimental period, a final reading test was administered.

FINDINGS. At the end of the experiment the mean grade score for the experimental group in total reading achievement was 5.83 while that of the control group was 5.35. The difference of .48 was found to be significant at the .02 level of confidence in favor of the experimental group, as shown by the t-value of 2.40.

When comparing achievement in reading comprehension skills, the mean difference was .48 in favor of the experimental group which resulted in a t-value of 2.18, significant at the .05 level of confidence.

With reference to reading vocabulary, the difference also favored the experimental group. The t-ratio was found to be 2.29, thus confirming significance at the .05 level of confidence.

The average gain made by the experimental group was 1.44 in comprehension and 1.27 in vocabulary; the average gain made by the control group was 1.17 in comprehension and 1.24 in vocabulary.

Boys and girls of the experimental group made equal average gains in reading comprehension, but the boys made greater gain in reading vocabulary. Boys and girls of the control group made approximately equal gains in reading comprehension, although less than that of the experimental group, while the average gain in reading vocabulary was greater for the boys than it was for the girls.

SUMMARY AND CONCLUSIONS. Specific training in finding the main idea in paragraphs and selections resulted in greater growth in total reading, reading comprehension, and reading vocabulary, than did the teaching of reading without such specific training as evidenced by statistically significant mean differences between the experimental and control groups in final reading comprehension skills.

The progress in both reading comprehension and reading vocabulary growth made by the experimental group receiving training in "main idea" and "sequence of idea" skills exceeded the progress made by the control group receiving no such specific training.

Both boys and girls of the experimental group benefited more by the intensive training given than did the boys and girls of the control group with no such specific training.

Mechanical Aids Reading Program vs. Basic Skills Reading Program on the High School Level

Brother Thomas Henning, C.S.C.

PROBLEM. The purpose of this experimental study was to determine whether a mechanical aids reading program is more beneficial than a basic skills reading program at the secondary school level. Another phase of the study was to determine whether the student in the higher ability group or the student in the lower ability group progresses more rapidly in the growth of reading if the mechanical aids program is taken first and the basic skills program second, or vice versa.

PROCEDURE. This study was restricted to 120 ninth grade students enrolled at Holy Trinity High School, Chicago, Illinois. The experiment was carried out for nine months so that it would be possible to secure a good estimation of the value of a mechanical aids program vs. a basic skills program.

During this study, the reading instruction period was conducted on a five-day-a-week basis, 42 minutes each day for two semesters. At the end of the first semester those students in the higher ability section and those students in the lower ability section who were on the machine program were then placed on the book program to compare the effectiveness of initiating a high school reading program using the machine or book method.

The higher ability section and the lower ability section students were determined by the school's placement center which operates an extensive testing program before assigning students to their class groupings. The object of this grouping was to study the effects of the reading programs with both the more accelerated and the lower ability students.

For the purpose of the study, those students who were given the book program during the first semester and the machine program during the second semester were designated as Group Bm; Group Mb included those students who were given the machine program during the first semester and the book program during the second semester.

All the subjects were given the Kuhlmann-Finch Intelligence Test, Senior High School form; the California Reading Test, Intermediate and Advanced form; and the Wide Range Achievement Test, Reading Section. The initial testing was conducted over a period of five days. The tests were administered by the writer at the beginning, mid-year, and at the close of the year.

In the planning of this research, a concerted effort was made to hold all external factors constant. After the initial testing in September was completed, equivalent groups were formed. The weekly lesson plan for the higher ability section (Group Bm) was as follows:

Monday - Developing reading skills; Be a Better Reader, Book III.
Vocabulary drill; Cebco Master-guides.

Tuesday - Timed tests in reading; Practical English. Power builders; SRA Laboratory, College Prep Edition.

Wednesday - Same schedule as on Monday.

Thursday - Timed tests and chapters on reading theory; How to Improve Your Reading.

Friday - Rate builders; SRA Laboratory, College Prep Edition. Recreational reading; book of student's choice.

For the lower ability section, the plan was as follows: (Group Bm):

Monday - Developing basic reading skills; Basic Reading Skills for High School Use. Drill on word attack and syllabication.

Tuesday - Timed tests in reading; How to Improve Your Reading. Power builders; SRA Laboratory, Secondary Edition.

Wednesday - Vocabulary drill. Use of certain sections of How to Improve Your Reading.

Thursday - Oral reading and interpretation; Adventures for Today.

Friday - Rate builders; SRA Laboratory, Secondary Edition. Recreational reading; book of student's choice.

For the higher and lower ability sections (Group Mb), the plan was the following:

Monday - Reading training films; State University of Iowa. Comprehension check and discussion of film.

Tuesday - Pacer practice; Shadowscope Reading Pacer. Selected readings and recreational reading books.

Wednesday - Same schedule as Tuesday.

Thursday - Same schedule as Monday.

Friday - Film review and recreational reading using pacer.

FINDINGS. In both approaches during the initial and mid-year period of developmental reading, there was a highly significant gain in reading improvement. With definite interest and selection of good materials, it is possible to have a good reading program at the secondary level. Observation showed that students tired of instrument work when consistently kept on it for a period of one semester. The instructor also noted that the higher ability students showed more signs of interest in both the machine and book program as compared to the lower ability students.

Both approaches showed a highly significant improvement at the .001 confidence level. As the statistics indicate, a reading teacher could begin with either a book or machine approach.

Even though not statistically substantiated, the book approach seemed to be more advantageous to the student during the first part of a developmental reading program, thus providing a basis for reading film and pacer practice.

SUMMARY AND CONCLUSIONS. Analysis of the data obtained in this experimental research study led to the conclusion that a mechanical aids reading program and a basic skills reading program are equally beneficial at the secondary school level.

1. The higher ability sections showed more signs of interest during the first semester of the developmental reading program. These students possessed better vocabularies and good study habits. The motivation of the mechanical pacers and the reading training films appealed more to the intellectually inclined students. The interest of the lower ability sections in the machine approach tended to decrease after the novelty of the mechanical aids became a day-to-day reading activity.

2. Analysis of the data showed a difference between the means, even though small, in favor of the book approach in developmental high school reading. However, the difference was statistically insignificant so that no definite conclusion can be made.

3. From observation and pupil comment, the machine approach played an important role in the motivation of students. The machines would have a special appeal to this group because of its composition—all boys.

4. Developmental reading programs are highly advisable within a high school as judged by gains made.

5. The findings in this study indicate that one semester of directed developmental reading (combination of machine and book approach) for higher ability students is recommended if the English department of a school coordinates reading skills along with grammar instruction and literature appreciation after the initial course in reading has been given. In this way, more students could be given developmental reading training in the school reading center. For lower ability students, one complete school year of developmental reading is recommended.

6. If funds are not available for the machine approach teaching, a secondary school could succeed without mechanical aids in a developmental reading course.

7. According to the results of this study, mechanical aids are desirable and recommended as a part of the reading program, but not as a reading program in itself. This would be particularly true in the case of students in the higher ability section who read at too slow a rate.

8. The author recommends a combination of both book and machine program for developmental reading in high school. The interest shown by boys for mechanical aids makes possible a tremendous motivating factor so necessary in the process of learning.

Word Study of Five Series of Recently Revised Readers for Grades One and Two

Sister Mary Victorine Kean, R.S.M.

PROBLEM. The purpose of the present study was to examine various series of readers suitable for children at primary level to make the child's task in beginning reading simple enough so that he can accomplish it with satisfaction, and yet sufficiently challenging to enable him to build the beginnings of power in word recognition. To achieve this purpose, a comparison and evaluation was made of five current basic series of readers at the first and second grade levels as to the number of repetitions of each word, the total number of running words, the rate of introduction of new words, and words common to all the five series.

To make the present study of value to teachers, it aimed to seek answers to specific questions: (1) At what rate are new words introduced in beginning readers for word mastery and rate of learning? (2) How many times are words repeated in beginning readers to aid the child in recognition of words? (3) Is there uniformity in series of readers at primary level with reference to total vocabulary load and with reference to words common to all series at any one level?

PROCEDURE. The first step in the present study was to select five current series of basal readers for levels Preprimer through Grade Two. Six books in each series included three Preprimers, a Primer, a First Reader, and a Second Reader. The following method was used in making the word counts:

1. Repetition of words.—A count of the number of times a word was used in each of the thirty books was made by checking off the word in each book as it appeared, recording it on graph paper, and placing a tally mark beside it. The

tally marks were recorded in groups of five which were then added to find the total. All variant forms of words were counted as separate words. The following forms were included:

a. Nouns ending in s, es, ies.
b. Verb forms ending in d, ed, ied, ing, en.
c. Adjective and adverb forms ending in y, n, ly, er, est.
d. Contractions.
e. Abbreviations.

The words of each book were arranged in alphabetical order, and the total number of repetitions of each word recorded.

2. Rate of introduction of new words.—This was achieved by dividing the total number of running words by the total number of new words introduced in each Preprimer. The same procedure was followed for the Primers, First Readers, and Second Readers of each series.

3. Total running words.—The sum total of running words was found by adding the number of words in each of the stories contained in the book.

4. Interlocking vocabularies.—The words of the thirty books were placed in alphabetical order and a check was made to indicate which book or books contained each specific word.

a. The percentage of words common to the five series of readers at each level was found.

b. The percentage of words common to all paired series of Preprimers I, II, III, and Primer level was found.

FINDINGS. A total of 1,693 different words was introduced in the thirty books studied. A total of 280 words, or approximately 16 per cent, was common to all the five series.

The total number of new words introduced in all the basic Preprimers of the five series totaled 324 words. Seventy-nine, or 24 per cent of these were included in the 280 common to all five series.

The total number of new words introduced in all the basic Primers of the five series totaled 530 words. One hundred fifty-nine, or 30 per cent, of these were included in the 280 common to all five series.

In the Preprimers I of the five series, the total number of different words was 60 of which only one word (come), or 1.6 per cent, was common to all five series.

The Preprimers II contained 107 different words of which only eight words, or 7.5 per cent, were common to all the five series.

The Preprimers III contained 140 different words of which only 26 words, or approximately 19 per cent, were common to all the five series.

All the Primers of the five series contained 430 different words of which 76 words, or approximately 17 per cent, were common to all the five series.

All the First Readers of the five series contained 896 different words of which 149 words, or approximately 17 per cent, were common to all the five series.

All the Second Readers contained 1,664 different words, of which 262 words, or approximately 16 per cent, were common to all the five series.

Eight hundred fifty-three, or 50.3 per cent of the 1,693 different words appeared in Series B. Seven hundred seventy-four, or 45.8 per cent of the 1,693 different words appeared in Series C. Seven hundred eighty-three, or 46.3 per cent of the 1,693 words appeared in Series D. Seven hundred twenty-two, or 42.6 per cent appeared in Series E.

SUMMARY AND CONCLUSIONS. Within this limited study, the following conclusions would appear to be valid:

1. Readers studied in the five series were quite different

with reference to the introduction of words. The Preprimers I differed with reference to the number of words introduced. One series had 12 new words, while another series had 21 new words. Preprimer III of one series introduced 15 new words while Preprimer III of another series introduced 27 new words. There is no uniformity evident with reference to rate of introduction of new words in these beginning readers for word mastery and rate of learning.

2. The five series of primary readers differed vastly with reference to the number of repetitions of new words. Preprimer I of one series repeated the word work four times, while the word come was repeated 55 times. The number of repetitions did not correlate with the difficulty of the recognition of the words.

3. Interlocking of words in the various series was lacking in the series studied. In Preprimers II, only eight of the total of 107 different words were common to all five series.

Since one requirement for a successful reading program is adequate and suitable reading materials, it is essential that basic and co-basic or supplementary readers be carefully selected on the basis of common words used, and on rate of introduction and repetition of words to provide for individual differences of pupils. Data in the following tables were assembled to aid teachers in the selection of supplementary or co-basic readers.

TABLE 1

COMPARISON OF WORDS COMMON TO TWO SERIES OF A SPECIFIC READING LEVEL (PP I, etc.) IN FIVE SERIES OF BOOKS

PP I			PP II			PP III			PRIMER		
SERIES:		NWC	SERIES:		NWC	SERIES:		NWC	SERIES:		NWC
A	B		A	B		A	B		A	B	
12	17	4	32	42	15	54	68	36	180	194	103
A	C		A	C		A	C		A	C	
12	17	2	32	44	17	54	71	41	180	218	116
A	D		A	D		A	D		A	D	
12	20	3	32	47	3	54	62	36	180	206	107
A	E		A	E		A	E		A	E	
12	21	4	32	46	4	54	73	36	180	199	108
B	C		B	C		B	C		B	C	
17	17	5	42	44	5	68	71	44	194	218	123
B	D		B	D		B	D		B	D	
17	20	3	42	47	3	68	62	36	194	206	116
B	E		B	E		B	E		B	E	
17	21	5	42	46	5	68	73	45	194	199	128
C	D		C	D		C	D		C	D	
17	20	5	44	47	5	71	62	39	218	206	109
C*	E		C	E		C	E		C	E	
17	21	6	44	46	6	71	73	43	218	199	128
D	E		D	E		D	E		D	E	
20	21	5	47	46	6	62	73	39	206	199	116

CODE:
A = AMERICAN BOOK COMPANY
B = SCOTT, FORESMAN COMPANY
C = GINN AND COMPANY
D = GINN AND COMPANY
E = ALLYN AND BACON, INC.

NWC = number of words common to two series of readers

*Of the 38 different words contained in Preprimers I of Series C and E, 6 words are common to the two series.

TABLE 2

COMPARISON OF PAIRED SERIES OF PREPRIMERS AND PRIMERS WITH REFERENCE TO PERCENTAGE OF WORDS COMMON TO TWO SERIES

Series	Per Cent
PREPRIMER I	
C-E*	16% (highest)
B-C	15%
A-C	7% (lowest)
PREPRIMER II	
A-C	22% (highest)
A-B	20%
B-D	3% (lowest)
PREPRIMER III	
B-E	32% (highest)
B-C	32% (highest)
B-D	27% (lowest)
PRIMER	
B-E	32% (highest)
C-E	30%
C-D	25% (lowest)

*In Preprimers I of Series C and E, 6 words, or approximately 16%, were common to the paired series.

A Survey of Supplementary Reading Materials Used to Enrich the Eighth Grade Geography Program in a Selected Number of Catholic Schools

Sister M. Colette Koessler, O.S.F.

PROBLEM. This survey was undertaken to ascertain the amount and kinds of supplementary reading provided by eighth grade teachers in teaching the geography of South America and to determine whether provision was made for pupils on different reading levels. The problem included the compilation of a list of supplementary reading materials with readability grade placement of the materials used. In addition, a very limited experimental study was made of the advantages derived from reading materials suggested.

PROCEDURE. Thirty questionnaires were sent to eighth grade teachers in schools taught by the same Sisterhood in a diocese of a midwestern state. Twenty-four recipients from 22 schools completed the questionnaire. The purpose of the inquiry was to learn what methods and materials were used in teaching eighth grade geography and what supplementary enrichment was provided.

The first section of the questionnaire yielded information concerning the size of schools receiving the questionnaire, the description of groups containing eighth grade pupils, school arrangement and identification of the specific class in question, experience of teachers, number of reading groups, use of geography textbook and workbook, supplementary reading materials in geography, manner of usage, current material made available through the school, free educational material made available, and incidence and types of activities related to the study of South America.

The second section of the questionnaire consisted of an alphabetical check list of juvenile books relating to South

America. Teachers designated titles of books with which they were acquainted or had in their classrooms, either temporarily or permanently. The writer found readability grade placement for the titles checked by means of the Dale-Chall readability formula. Where it was more appropriate, the Spache formula was applied.

In connection with the survey a limited experimental study was made of children's reactions to supplementary readings.

FINDINGS. The largest per cent of replies was from schools having single classes for eighth grade pupils. Half of the schools had more than eight classrooms. The total number of eighth grade pupils in a school ranged from 120 in the largest school to 4 in the smallest. IQ scores ranged from 154 to 73, with the mean of IQ medians found to be 108. Teachers' experience in the profession ranged from five to thirty-eight years.

Eighteen teachers of the 22 respondents indicated having more than one reading group in a classroom. However, some of the teachers reporting had more than one grade in the room. The bases upon which reading groups had been established varied, thus making it impossible to ascertain whether the groups were receiving reading instruction at their true instructional levels.

All teachers responding indicated that they were using the prescribed diocesan text. The textbook was most commonly used for reading together in class by class members and for picking out main points. The correlated workbook was used by 20 teachers.

Seventy-five per cent of the teachers stated that they use other books and materials in addition to the basic text. This material was supplied through the classroom library, library loan for the class, and/or pupils' personal library loans. Readings assigned for oral reports and content shared through class discussion were evidently the most commonly employed methods of using this additional material. At least one of the periodicals listed in the questionnaire was made available to pupils either by individual copies or one or two classroom copies. The supplementary free educational material provided by the National Dairy Council and the Pan American Bureau were used more than other free reading material named. Nine teachers stated the occasional use of films and filmstrips as supplementary aids. Discussion of current affairs and news reports were engaged in more frequently than the other geography activities mentioned. Opportunities for exercising and developing a variety of individual talents and skills were extended by the teachers through these activities.

Since only 25 per cent of the respondents expressed an opinion regarding materials found suitable to the adjusted pupil, it seems reasonable to conclude that the greater number either do not supply this extra geography material, have no pupils on the adjustment program, or do not know of suitable material in geography for these poorer students.

A bibliography of related books for the study of South America was compiled, including factual, fiction, and reference books. For titles with which teachers were familiar, readability grade placement was found exclusive of reference books. This was done to inform teachers of available related material at different reading levels.

The writer found that half of the 78 books to which the formula was applied were in the fifth to sixth grade category of reading difficulty. Approximately 28 per cent were found to have a readability grade placement of seventh to eighth grade reading level. Only four books yielded a grade score below fifth grade level. This is significant because it points to the lack of material for very poor readers among eighth grade pupils. The remaining books were for students at or above a ninth grade reading level. Five of these books were found to have a reading grade placement beyond tenth grade level.

All of the teachers indicated either having or being familiar with one or more reference books listed in the questionnaire. Knowledge of the extent of their use, however, is lacking.

In general, data indicated a definite dearth of related books in classroom libraries or on library loan.

Teachers who indicated familiarity with the books most frequently checked were requested to have several children read one or more of the selected books independently and evaluate them according to prepared report forms. The benefits of correlating additional reading with textbook learning was evidenced by the pupils' reactions. Generally pupils seemed to have gained in geographical knowledge.

SUMMARY AND CONCLUSIONS. Through inquiry by means of questionnaire, a study of the eighth grade geography program in 22 schools was made. Such factors as size of schools and classes in which eighth grade groups were included, pupils' IQs, teachers' experience, reading groups within a room, use and manner of use of the prescribed geography textbook and volitional use of its accompanying workbook, the provision and use of supplementary geography reading and reference books were considered. The types of supplementary geography activities in which pupils participated as well as use of free educational materials, visual and audio-visual aids provided through the use of films and filmstrips, were among the ways of correlating and extending knowledge of people and places studied. The kinds and extent of provision made for poor pupils by individual teachers were also noted. Aside from irregularities in all of the above factors, it seems evident that much effort has been expended to help pupils learn geography through diversified types of teaching and pupil activities.

From the data on supplementary books related to South America there appears definite need for more books in classroom libraries or on library loan. Their use would undoubtedly add information for a broader understanding of peoples and their lands. From the limited experiment made, the children's appraisals of supplementary reading were a confirming factor.

An Experimental Study of the Effect of Intensive Training in Listening Skills on Reading and Spelling Achievement

Sister M. Patrina MacDonnell, O.P.

PROBLEM. The object of this experimental study was to determine the relative effect of intensive training in listening skills on reading and spelling achievement in grade one.

PROCEDURE. The experiment included 63 first grade children in two schools located in two suburban towns in New England. The population was representative of a normal socio-economic class, and the teachers were comparable in both education and in teaching experience. The size of the sample population and the short duration of the study could prove a limiting factor influencing the outcome of the study.

Preliminary tests of mental ability, reading, spelling, and listening comprehension were administered to determine the initial status of each pupil in these areas; statistical calculations were then used to equate the two groups. The experimental group received intensive training in listening comprehension skills in conjunction with the regular reading program, while the control group followed the regular course of reading instruction in the basal reading manual. At the end of the experimental period which was three months, final tests were given to measure the comparative gains made by the two groups in reading, spelling, and listening.

The materials used in the experimental situation consisted of 44 constructed listening exercises written by Sister M. Eulogius, C.S.J., entitled "Listening Exercises" appearing in an unpublished Master's dissertation, Cardinal Stritch College, 1962. Supplementary materials of specific skills were used, chosen on the basis of research and personal experience, as well as exercises and drills constructed by the writer to strengthen and develop listening comprehension. The following skills were developed in the order of presentation:

1. Following the thought of the speaker.
2. Determining words in context, word meanings, and relationships.
3. Selecting main ideas and critically examining what is heard.
4. Recalling ideas sequentially and noting details.
5. Making inferences and drawing conclusions.
6. Developing empathy (the ability to put oneself in another person's place).

FINDINGS. Comparative scores on the initial and final tests for both the experimental and control groups were tabulated and analyzed.

The mean reading grade score of the experimental group in total reading achievement was 2.94; that of the control group was 2.62, yielding a mean difference of .32 and a t-ratio of 2.46 which confirmed statistical significance at the .01 level of confidence in favor of the experimental group.

The mean spelling achievement grade score of the experimental group was 2.80 while that of the control group was 2.62. The mean difference of .18 favored the experimental group, but the t-ratio of 1.64 did not reach statistical significance at the .05 level of confidence.

The mean listening achievement raw score for the experimental group was 49.47 while that of the control group was 48.17, yielding a mean difference of 1.30. The t-ratio of 3.42 attested to statistical significance at the .01 level of confidence in favor of the experimental group.

SUMMARY AND CONCLUSIONS. The conclusions resulting from analysis and interpretation of data are as follows:

1. Intensive training in listening skills significantly improved total reading achievement skills.

2. Improvement in spelling was significantly aided by intensive training in listening skills although probably to a lesser degree than improvement in reading.

3. Training in listening skills affected growth in this skill to a significant degree.

An Experimental Study of the Effect of a Concentrated Program of Listening Comprehension Skills on Reading Comprehension of First Grade Pupils in Selected Schools in Massachusetts

Sister M. Eulogius McCormack, C.S.J.

PROBLEM. The purpose of this problem was to determine the extent to which reading comprehension can be improved through the development of listening comprehension in the first grade. A consideration of the relationship which exists between these two facets of the language arts evoked specific questions pertinent to this relationship:

1. As a facet of the language arts, does the importance of listening justify a definite listening program at the first grade level, or, does the regular curriculum offer enough opportunity for training in listening?

2. Which specific skills should be emphasized in a listening program at the first grade level?

3. To what degree would specific training in listening comprehension affect readiness comprehension during the first year of reading instruction?

PROCEDURE. The sample population was composed of an experimental group and a control group. Each group comprised 44 first grade children randomly selected from two neighboring schools in Massachusetts.

Data to achieve the purpose of the study were obtained from results of the following tests:

The California Test of Mental Maturity, Primary, Short-Form, 1957.
The Webster Reading Readiness Test.
Listening Test constructed by the writer.
Gates Primary Reading Tests, Form 1.

The Chi-square test of normalcy of distribution was applied to the IQ scores obtained from the California Test of Mental Maturity, and yielded results which showed the sample from which the participating groups were chosen to be normal.

The two groups were comparable in such factors as intelligence, mental age, reading readiness, and listening ability.

The duration of the experimental period was six months during which time the experimental group received intensive training in listening comprehension skills for fifteen minutes each day whereas the control group received no special training in listening during the regular language arts period.

Skills selected for emphasis with the experimental group included: (1) using context clues; (2) observing verbal relationships; (3) noting details; (4) selecting the main idea; (5) recalling ideas in sequence; (6) following directions; (7) making inferences and drawing conclusions.

Materials employed for instructional purposes consisted of 44 listening exercises constructed by the writer and supplementary material in the form of stories by noted children's authors. Instruction in reading was held constant for both groups.

FINDINGS. Analysis of the final test results in reading achievement evidenced a statistically significant mean difference between the two groups in favor of the experimental group. The most significant differences occurred in the phases of sentence and paragraph comprehension, since the differences were significant at the .01 and .02 levels of confidence, respectively.

The slight difference which existed in favor of the experimental group in the test results for word recognition might lead to the conclusion that while training in listening comprehension affects reading comprehension, such training would not concomitantly appreciably increase word recognition skills.

Results obtained from a comparison between the upper third and middle third mental age groups and between the middle third and lower third mental age groups indicated that the lower mental age group profited most by training in listening comprehension skills.

SUMMARY AND CONCLUSIONS. Major conclusions of the study were as follows:

1. Children of first grade are susceptible to training in listening as evidenced by keen interest and objective test scores.

2. First grade children can be trained in the following specific listening comprehension skills:

a. Using context clues
b. Observing verbal relationships
c. Noting details
d. Selecting the main idea
e. Recalling ideas in sequence
f. Following directions
g. Making inferences and drawing conclusions.

3. Training in listening comprehension significantly aids reading achievement, especially sentence and paragraph comprehension.

4. Training in listening comprehension skills contributes but slightly to word recognition skills.

5. The lower mental ability group seemed to profit most by training in listening comprehension.

A Comparative Study of the Value of the Weekly Pre-test in the Teaching of Spelling in the Junior High School

Sister Mary Domitian Moscicka, C.S.B.

PROBLEM. The purpose of this study was to determine the effect of the Test-Study method of teaching spelling on the spelling achievement of seventh grade pupils, to ascertain the effect of this method of teaching spelling on the reading achievement of the same children, and to find the relationship between the initial and the final test scores obtained by the use of the Wide Range Spelling Test.

PROCEDURE. The subjects of this study were 62 pupils randomly chosen from two seventh grades of two parochial schools in the New England area: one in Central Falls, Rhode Island and one in Hyde Park, Massachusetts. Each group consisted of 31 pupils, eight boys and twenty-three girls.

In selecting the population for the experiment the potential and achievement of each child were determined through the use of three tests: (1) California Test of Mental Maturity, Elementary; (2) Wide Range Spelling Test; (3) California Reading Test, Form W, Junior High.

Groups were equated on the basis of four characteristics: chronological age, mental age, total reading achievement, and spelling achievement. In total reading achievement, the grade scores for the experimental group represented a range of 5.0 to 11.5 with a mean of 8.05. The grade scores for the control group indicated a range of 5.7 to 11.0 with a mean of 8.15. Relative to spelling achievement, the experimental group had a mean of 7.30, the range being from 5.2 to 10.1. For the control group the mean grade score was 7.00 with a range from 4.8 to 10.7.

Since both grades had different teachers, in order to control as many factors as possible, the teacher of the control group was given a lesson plan to follow for the week. This plan was identical to the one used by the teacher of the experimental group. The only difference in the two plans was the omission of the pre-test at the beginning of each week's assignment in the control group.

The period of the experiment lasted approximately five months, from Sept. 1961 to Feb. 1962, with a daily lesson in spelling for fifteen minutes. The same text was used by both groups: Words in Action - Grade Seven.

The weekly lesson plan used by the teacher of the experimental group was as follows:

Monday:	Pre-test; correction of the test; reading of the story; underlining of the new words; explanation of difficult words.
Tuesday:	Exercises in the textbook.
Wednesday:	Correction of the exercises; study of the new words.
Thursday:	Supervised individual study of the words.
Friday:	Final written test; correction of the test; recording the misspelled words.

FINDINGS. At the close of the experiment, analysis of the data on spelling achievement indicated no difference between the mean grade scores of the two groups. Study of the data on the total reading achievement revealed a difference of .08 between the mean grade scores in favor of the control group, which difference, however, was not statistically significant at confidence levels.

A comparative study of the progress made by both the experimental group and control group during the five-month investigation showed statistically significant progress in spelling and in total reading at the .01 level of confidence.

SUMMARY AND CONCLUSIONS. The teaching of spelling according to the Test-Study method as also the teaching of spelling according to the Study-

Test method resulted in statistically significant progress for both groups in total reading achievement.

Both the experimental and control groups made statistically significant progress in spelling achievement. Neither method of teaching spelling was found to be superior.

An Experimental Study of the Effect of Intensive Training in Composition Development through Functional Use of Vocabulary on General Reading Achievement of Seventh Grade Pupils

Sister M. Engelbert O'Donnell, C.S.J.

PROBLEM. This experiment was carried out with the purpose of studying the relative effectiveness of intensive training in writing paragraphs and compositions upon the improvement of reading comprehension and vocabulary growth at the junior high level. The more specific questions which this investigation hoped to answer were:

1. Will intensive training in the writing of paragraphs and compositions improve reading ability in general?

2. Will these exercises in writing increase vocabulary knowledge?

3. Will intensive training in writing compositions increase an understanding of the printed page?

4. Will writing experience foster interest in and love of free independent or leisure time reading?

PROCEDURE. The subjects for this experiment were 88 seventh graders from two classes in one parochial school in Milton, Massachusetts. They were comparable in ability and had the same economic, educational, and religious background. The investigator's class of 44 represented the experimental group; the other class, the control group.

The two classes were equated on the basis of the results of test scores in the following areas:

Intelligence—The California Short-Form Test of Mental Maturity, Junior High level, 1957.
Reading—SRA Reading Achievement Test—Grades 6-9.
Writing—STEP Writing Test, Level 3.

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The normalcy of distribution of the sample was established by means of the Chi-square test, applied to the IQ measurements obtained from the California Short-Form Test of Mental Maturity.

The experimental and control groups were found to be comparable not only with reference to intelligence, but also in initial total reading grade scores, comprehension, vocabulary, and writing. The t-test was employed to determine significance of the differences between mean scores of the two groups.

The period of experimentation was four months, during which time the experimental group received intensive training in writing compositions, substituting planned lessons for those in the course of study. The control group followed the conventional plans outlined in the course of study for English. Both groups had a daily period of 45 minutes for English.

The pattern outlined for the experimental group was as follows:

1. Each student kept a journal in which he made daily entries.
2. New words were entered into a vocabulary notebook and discussed in class.
3. One composition a week was required on Thursday.
4. Motivation for composition on Monday and Tuesday.
5. Use of models—discussion of pupils' writing problems.
6. Return corrected composition—discuss errors.
7. During discussion periods the following plan was employed:
    a. A lively discussion of selected topics to motivate and stimulate the class and insure sufficient background for all.
    b. Word enrichment in which an effort was made to substitute new words for overworked ones.
    c. Expansion of sentences.
    d. Variety in sentence work.

In order that no other variable might operate and thereby influence the reading factor, the reading program planned for both groups during the entire period of the experiment was to be identical.

FINDINGS. The analysis of the data on final test scores in total reading, vocabulary comprehension, and writing showed that the experimental group was significantly superior to the control group. In studying the greatest mean differences, it was noted that the differences between total reading mean scores and vocabulary mean scores were highly significant at the .001 level of confidence, while differences between comprehension and writing mean scores were significant at the .01 level of confidence.

SUMMARY AND CONCLUSIONS. In view of the findings it seems justifiable to state that students who are given intensive training in writing will achieve greater competence in total reading achievement than will children whose program in writing is restricted to the plans outlined in the course of study. Furthermore, intensive training in writing significantly aids vocabulary knowledge. There was conclusive evidence that the exercises helped to increase comprehension of the printed page. Finally, the results of the writing unit yielded a significant improvement in the written compositions of the students as evidenced by the results obtained on the STEP Writing Test and by the pupils' own evaluation of their accomplishments in the language arts.

The Effect of the Teaching of Word Analysis Skills on the Improvement of Reading of Sixth Grade Negro Children

Sister Anne Magdalene Sheehan, C.S.J.

PROBLEM. The purpose of this study was to evaluate the result of a re-presentation of word attack skills—particularly those of a phonetic nature—to sixth grade Negro children. Three factors were considered in the development of the objective:

1. Whether reading achievement of sixth grade children would be increased as a result of daily practice in the mastery of the word attack skills.

2. Whether the results would be sufficient to warrant the inclusion of such instruction in word attack skills in the regular program, and what reasons might be adduced for the lack of improvement if practice in the mastery of word attack skills proved ineffectual.

PROCEDURE. The population consisted of 76 Negro children in a parochial school in Brooklyn, New York. An experimental and control group were formed and equated on the basis of results obtained from the following tests: The Otis Quick Scoring Mental Ability Test, the Gates Reading Survey and the Diagnostic Test on Word Analysis Skills.

Forty minutes a day, over a period of eight weeks, were assigned for the reading instruction of both groups, experimental and control. The children in each group were subdivided and taught according to their reading instructional levels. Each group was subjected to the same lesson presentations and completed the same assignments in the workbooks which accompanied the respective readers. The experimental group was, in addition, daily exposed to instructions in phonics and other word attack skills.

FINDINGS. At the outset of the experiment, the experimental and control groups were found to be comparable in vocabulary skills. When the initial and final test scores of the two groups were compared and evaluated, a mean difference of .7 grade points in favor of the experimental group was found, resulting in a t-value of 2.41, significant at the .02 level of confidence. This points to a statistically significant gain in reading vocabulary in favor of the experimental group.

The application of the direct difference technique to test data revealed that the progress made by each group during the period from the initial to the final testing was significant at the .001 level of confidence for both reading vocabulary and comprehension.

SUMMARY AND CONCLUSIONS. From the analysis of data accruing to the experimental group as a consequence of eight weeks of instruction and practice in phonics and other word attack skills, the following conclusions were made:

1. The vocabulary section of the reading test required the choosing of a synonym for the first word in each line. This skill would necessarily include word identification and recognition, as also meaning and pronunciation. Data revealed that a statistically significant mean difference resulted between initial and final vocabulary tests. Therefore, word recognition and vocabulary knowledge were increased as a result of a representation of phonic and other word attack skills to sixth grade Negro children.

2. The gains made by the experimental group in reading vocabulary growth suggest the value of the use of a phonics book in grade six as a remedial aid for those children who are weak in word attack skills.

3. The fact that the experimental group failed to achieve significant results in comprehension when compared with the control group may be due to one or all of the following reasons:

a. Increase in vocabulary or word recognition of isolated words would not necessarily increase comprehension of phrases, sentences, and paragraphs which call for numerous other skills that would not be affected by phonics and structural analysis of words.

b. It is evident that children with varying degrees of mentality can be taught to recognize whole pages of words but it is quite a different matter to teach the same children to understand the content of the printed page, since comprehension involves higher thought processes.

c. Both the reading class time and the experimental time allotted to this particular study were too short to secure desirable growth in comprehension.

d. Since a reading capacity test was not administered to either group it cannot be ascertained if a certain number of the children (whose IQs place them in the category of slow learners) participating in the experiment had not already attained their potential in regard to comprehension. A study of the mental ages of 23 sixth grade children in the experimental group indicated a range from 7-5 to 10-0 which might suggest that for these, maximum comprehension may have already been attained, while for others, intensive work in this area would be necessary to enable them to reach their capacity.

The Ethical Values Portrayed in Basal Readers and Supplementary Materials for Grade One and Their Effect on Personality Changes of Pupils

Sister Marie Bernarde Sullivan, R.S.M.

PROBLEM. The purpose of this study was to determine the effect or value of certain techniques of developing principles of conduct by reading stories containing ethical values portrayed by the characters in the stories.

By means of the study of ethical values gleaned through observation of the evident virtues manifested by characters met in various readers, it was hoped that answers to the following questions would be found:

1. Can guidance in the study of characters in stories lead the child to glean ethical values for the formation of moral principles?

2. Would such study of personalities under guidance and encouragement lead to a change in conduct and personality?

3. Would a period of such training lead to the formation of habits of good conduct?

4. What level of mental development or mental age might most beneficially be aided by such guided critical study of characters in books?

There are certain stages of development in the control of conduct by principle, each one of which may take a certain amount of time: (1) the principle is perceived and admired; (2) it remains dormant in the mind for an indefinite period of time and has nothing to do with conduct; (3) an occasion arises in which the subject sees a relation between the occasion and the principle and, with more or less effort on his part, the principle determines conduct; (4) a period of development follows in which the principle more or less consistently determines conduct until the correct response to the situation follows, as if by reflex action.

PROCEDURE. At the commencement of the 1960 school year, the children of the first grade of two private schools in Rhode Island were given the Science Research Association Primary Mental Abilities Test. An intelligence quotient for each child was derived from the results of this test. A random group of thirty children was selected from each school, the two groups being comparable as to intelligence, readiness for instruction in reading, and initial personality rating. Normalcy of distribution was statistically determined by application of Chi-square test to the mental age scores in months.

The individual Wechsler Intelligence Scale for Children was administered to each of the sixty children who comprised both the experimental and control groups. Other initial tests administered were the Webster Reading Readiness Test and the Personality Checklist constructed by the author.

At the close of the experimental period of five months, a second form of the Personality Checklist was administered to both groups to ascertain changes in personality development, and the Metropolitan Achievement Test, Form A, Primary Battery, was also given to both groups in order to compare progress or achievement of the pupils in arithmetic and in the language arts.

The plan of procedure was to teach reading to one class of first grade children, directing the attention of the children participating in the experiment to the ethical values in the selected stories by using bulletin board demonstrations correlating art activities, and by supervising dramatizations.

The second group of first grade pupils who comprised the control group read the same selected stories without special stress on the ethical values by the use of means described above. The experimental group was taught by the author of this study, while the control group was taught by a Sister-teacher of comparable experience and educational background.

Pre-primers, Primers, and Basal Readers of three different series of first grade books were selected and six virtues were chosen by the writer which were thought to be of importance in the formation of character: generosity, thoughtfulness, cooperation, perseverance, courtesy, and fidelity to duty. In the acquisition of these virtues it was assumed that personality development would be enhanced.

Previous to the initial testing done by the author, an analysis of the books chosen was made to determine which stories portrayed ethical values. Six stories, (one story for each of the ethical values) were selected from each of the six readers.

Observations were made daily as to the manifestations of the selected virtues. Records were kept for each child during school hours and these findings were transferred to individual record sheets each evening. These latter became the basis for rating each child by means of the Personality Progress Scale constructed for the purpose.

At the close of the experimental period of five months, final tests and checklists were used to make a comparative study of progress in the acquisition of virtues and habits for the improvement of personality, as also to determine progress in general achievement made during the experimental period.

FINDINGS. Data gave conclusive evidence of statistically significant mean differences between personality trait scores of the two groups. The mean score for the experimental group was 5.66 while that of the control group was 3.63, yielding a mean difference of 2.03 which resulted in a t-value of 8.46, indicating a highly statistically significant difference in favor of the experimental group.

SUMMARY AND CONCLUSIONS. Analysis of the data led to the following conclusions which seemed to give answers to the questions posed:

1. Guidance in the study of characters in the stories led the children to glean ethical values for the formation of moral principles of conduct.

2. Guided critical study of personalities resulted in changes in the conduct and in the personalities of the pupils.

3. The period of training by means of the techniques used in the study led to the formation of habits of good conduct.

4. With reference to growth in personality development, the upper and middle mental age groups seemed to profit equally by guided character study; however, the lower mental age group seemed to benefit even more by such training.

The Improvement of Reading Comprehension Through Vocabulary Development by Means of Word Analysis Practice in the Intermediate Grades

Sister Alice Richard Wills, S.C.M.

PROBLEM. The chief purpose of this research study was to determine the extent to which reading comprehension in the intermediate grades could be improved through vocabulary development. Specific questions investigated were:

1. Will vocabulary development be increased through specific instruction in word analysis?

2. Will reading power be increased through constant use of the word analysis practice cards?

3. Will the reading achievement of children who have received intensive training in vocabulary development be increased over those who have received only incidental learning?

PROCEDURE. The population consisted of two groups of approximately 100 boys and girls of grades five and six, from two parochial schools in Massachusetts. In the school designated as the control, the conventional one-level reading approach was pursued. This method is known as the basal reading program. Reading comprehension and vocabulary growth are sought by means of directed reading activities. All pupils participate in reading and discussing the same story. The lesson is culminated by assignments according to each lesson in the workbook.

In the school designated as the experimental, a basal reading program was also followed with the exception that reading groups were formed based on ability, and Word Analysis Practice cards were used as supplementary material for training in vocabulary development.

For a period approximating ten weeks these pupils worked 15 minutes daily on vocabulary development, time allotment being drawn from the regular reading periods. The Word Analysis Practice was used as directed by Durrell, et al. The threefold tasks of sounding out words, checking for pronunciation and classification, and reading lists of words for correction, were accomplished by having the pupils working together in teams. In the intermediate series in which there are three sets of 30 cards each, levels A, B, and C, pupils of low fourth grade reading ability comfortably use level A cards which contain 720 words. Four or five children were placed in level A group in order to assure feeling of success from the beginning of the experiment. Levels B and C cards which contain 1200 words each were assigned to a greater number of pupils representing average fourth to low fifth and average fifth to low sixth grade reading abilities.

The equivalency of the experimental and control groups in intelligence and initial reading achievement was established. Analysis of data included comparison of gains of the experimental and control groups on final reading achievement.

FINDINGS. Distribution of chronological ages for both groups was found to be normal for these respective grades.

Mean mental ages for the fifth and sixth grade groups were approximately two years higher than the mean chronological ages. The corresponding mean IQ scores were also correspondingly higher than the norms for these grades. The test administered to the children was the California Short-Form Test of Mental Maturity, Elementary, 1957, S-Form.

Mean reading grade achievement scores showed an advancement of two grades above the norms for these grades. The test given was the California Reading Test, Form W.

At the close of the ten-week experimental period, Form X of the California Reading Test was given to all four groups and results assembled. No statistically significant difference was found between the final reading grade scores of the experimental and control groups of the two intermediate grades.

All four groups did advance in reading growth during the experimental period.

SUMMARY AND CONCLUSIONS. Within the limits of this study with intermediate grade children, the following conclusions appear to be valid:

The experimental group who followed an intensive program of vocabulary development through the word analysis technique and teamwork, as also the control group of grades five and six, evidenced growth in reading achievement during the experimental period. Although this progress was not statistically significant at the .05 level of confidence for any one of the four groups, the control group of grade five made greater progress without the experimental factor than did the experimental group.

No significant difference in progress was found between the experimental and control groups of grade six but the slight difference favored the experimental group.

Practice in teamwork and vocabulary study by means of word analysis technique did not seem to be more effective for the improvement of reading comprehension than was the regular basal reading program without the introduction of the experimental factor.

Although no objective data were gathered of the effect of teamwork, the teachers of the experimental groups observed that the children enjoyed the element of "give and take" during their periods of team study. Teamwork improved the classroom atmosphere by serving to engender in the minds of the children a more favorable attitude toward study.

A Study of Factors in Basal Reader Stories Which Have the Greatest Appeal to Intermediate Grade Children

Sister Mary Madonna Zweber, S.S.N.D.

PROBLEM. The present study was undertaken to evaluate the contents of intermediate grade basal readers in order to determine the elements in the stories which had the greatest appeal to children. The conclusions were based on the responses of children who were provided with an opportunity to state their preference for particular stories and for broad areas of interest most attractive to them.

The more specific questions which the investigation had sought to answer were: (1) Are children really interested in the stories in basal readers? (2) Which topics in basal readers have the greatest appeal? (3) What are the appealing factors? (4) Is there a difference in interest at different IQ levels? (5) Is there a variation in interests between boys and girls?

Limitations in the study were recognized. Due to circumstances, the investigation was limited to a relatively small group of children in a single school and locality. The excess of boys over girls in the study may constitute a limitation insofar as boys' preferences might be somewhat different than those of girls.

It was hoped that the study would be significant in providing publishers and authors of basal readers with reliable evidence to guide them in their constant endeavor to make basic reading materials more interesting and meaningful for children and in aiding teachers to select books with real interest appeal to children.

PROCEDURE. The population of the present study consisted of 21 children in the fourth grade and 21 children in the fifth grade in a midwestern school. The study was conducted during the school year 1960 to 1961. Two representative series of basal readers were used in the investigation.

It was the plan of the study to secure the spontaneous reactions of the children after each story had been read. To make it possible to carry on an informal discussion and to record responses, groups had been formed randomly at the beginning of the study. Thus, three groups of seven were formed in each grade, and responses from each group were obtained on every third story.

Immediately after the guided reading of each story a group was called together for discussion. An effort was made to secure a response from each child; however, since the discussion was continued only as long as the responses were spontaneous, there were times when all the children did not respond. The discussion was tape recorded, and later, responses were copied verbatim onto a record sheet and classified.

After the completion of each unit and again at the completion of the book, the children were given an opportunity to select the story they liked best and to state the reason for their preference. They were also asked to indicate any story they disliked. The appeal of broad interest areas was ascertained from the children's ranking of the units at the completion of the book.

At the end of the year the group was given an interest questionnaire containing a list of typical unit themes and a list of fictitious titles of stories. The children were asked to indicate their likes and dislikes. The purpose of this questionnaire was to double check choices by presenting titles of units and stories which represented similar and parallel ideas to the ones in the readers.

FINDINGS. In this study of the elements of appeal in the stories in basal readers which captivated the interest of middle-grade children, it was evident from the spontaneous responses recorded after each story that the satisfactory ending of the story is the feature which had most appeal. Other elements ranking high were: excitement, humor, and suspense.

The interests of the boys and the girls in this study were, for the most part, similar. Exciting, fast-moving stories with satisfactory outcomes, humorous stories full of fun and frolic, and biographies were much enjoyed by both groups.

A pattern of interests was noticeable in certain stories. Stories of games and contests, of outdoor adventure, thrilling stories characterized by a narrow escape, and stories of boys and men who achieved appealed more strongly to boys. The girls were attracted to a greater extent by stories in which a girl proved her worth, sentimental stories with a bit of make believe and romance, and stories in which the goodness and kindness of a character are outstanding.

The children in the study, as a rule, reacted enthusiastically and showed considerable or at least moderate interest in most of the stories read. The few who voiced a dislike for a story did so because of lack of interest in a particular topic, lack of excitement of fast action, or an unappealing character. Some boys expressed a dislike for stories about girls.

A comparison was made of the story preferences of those in the upper quartile with those in the lower quartile. No recognizable pattern of interests was noticeable. The stories selected as favorites by children in the upper quartile were also selected by some in the middle and lower groups.

The broad area which proved to be most popular with the children in this study was the unit of stories described as storyland favorites—folk tales, fables, legends, tall tales, and modern fanciful stories. Considerable interest was shown in units containing stories of pioneer days, in biographies of famous people, and in stories with a religious theme. Least preferred of all the categories were those units about children of today with their everyday experiences and problems, and those that centered around the use of modern inventions and the important part they play in modern living.

The general interest questionnaire revealed the type of stories the children thought they would like to read and the large interest areas which they preferred. The data gained from this questionnaire were in agreement with findings throughout the study. Story titles which implied action, excitement, suspense, or humor were very appealing to the children. They were least attracted by titles which suggested stories about modern boys and girls, or groups such as Cub Scouts, and by titles containing names of animals with no action implied. Large areas that ranked favorably were mystery and adventure stories, tales of long ago, stories about cowboys, Indians, and pioneers, stories with a religious topic, and humorous stories.

SUMMARY AND CONCLUSIONS. This study was carried out to determine appealing elements in modern intermediate grade basal readers. Qualified by the limitations stated previously, the results of this study seemed to justify the following conclusions:

1. Publishers have included in basal readers many stories that are very appealing and acceptable to children.

2. According to this study, the broad interest area which held the most consistent appeal for children at the intermediate grade level was that classified as storyland favorites. Included in this category were modern imaginative stories, tall tales, fables, legends, and folk tales.

3. Considerable interest was also expressed in mystery and adventure stories, in stories of pioneer days, in biographical sketches, in humorous stories, and in stories with a religious theme.

4. Least preferred of all the categories considered were those units about children of today and their everyday experiences and problems, and stories centering around modern inventions.

5. When given an opportunity to state the elements in stories which appealed, a satisfactory ending was the factor most frequently mentioned. Excitement, suspense, and humor also ranked high as interest determiners.

6. The interests of the boys in this study were, for the most part, similar to those of the girls. There were, however, certain differences in degree of interest as shown by preferences of boys and girls. The boys were attracted to a greater extent by stories of games and contests and thrilling outdoor adventures than were the girls. Stories in which a girl proved her worth, sentimental stories, and stories in which the goodness and kindness of a character were outstanding, appealed in a greater degree to the girls than to the boys.

7. In judging title appeal it was evident that titles which implied action, excitement, or humor were very appealing while those in which no action was implied were decidedly unpopular.

8. On comparing the preferences of the children in the upper quartile with those in the lower quartile, no recognizable pattern of interest was evident.

An Experimental Study with Mentally Retarded Children on the Effect of Varied Musical Stimuli on School Atmosphere and Growth in Learning

Sister Maureen Hanley, R.S.M.

PROBLEM. The underlying purpose of this research study was to determine the effect of varied musical stimuli on the school atmosphere and growth in learning of mentally retarded children. The study was undertaken for several reasons: (1) to determine the extent to which music, in various forms, would fulfill certain educational needs of retarded children; (2) to observe improvement in classroom spirit and behavior generally; (3) to determine the value of music as a means of developing skills in numbers and in reading; (4) to compile data resulting from successful musical experiences with children who are mentally handicapped; and (5) to determine the areas in which intensified academic training contributes to the effective total functioning of retarded children in a day school when they have been provided with a musical environment.

PROCEDURE. The population was secured from two private day schools for mentally retarded children in Fall River, Massachusetts and Bethesda, Maryland. The experimental group, consisting of 15 students, was chosen from the former and 15 similar pupils were chosen to form the control group from the latter. The chronological ages of these children ranged from 6 to 12 years, with a mean chronological age of 9 years. Stanford-Binet Intelligence Tests showed a mean intelligence quotient of 64.93 for the experimental population and 64.66 for the control group. Mental ages ranged from 41 months to 87 months in the experimental group and 45 months to 87 months in the control group. No statistically significant difference existed between the groups in chronological age, intelligence quotient, or mental age.

To appraise achievement in numbers and reading, the American School Achievement Tests, Form D, Primary Battery I, was administered at the outset of the program which lasted eight months. The results of these tests showed no statistically significant difference between populations.

An original Check List, compiled by the author, with adaptations on content and following the standardized scoring procedures of Sister Mary Amatora's Child Personality Scale, formed the basis of ratings on classroom behavior traits. Initial results of both groups, when statistically interpreted, showed the groups to be equated.

A musical-educational program was initiated for the experimental group while the control group had no special music instruction other than that taught in the daily curriculum. The experimental students engaged in a 15-minute period of music activity daily, and all learning tasks, whether in class or not, were musically oriented.

FINDINGS. Analysis of the data obtained from initial and final testing in reading achievement, number achievement, and in classroom behavior traits showed the following:

1. No significant difference was found to exist between the experimental and control groups in final reading achievement.

2. No significant difference was found to exist between the experimental and control groups in final number achievement.

3. No significant difference was found to exist between the groups in final Check List scores relating to classroom behavior traits.

4. The experimental group made statistically significant progress in reading and number achievement as well as in classroom behavior traits between initial and final testing.

5. The control group showed statistically significant progress in number achievement between initial and final testing, but not in reading or in classroom behavior traits.

SUMMARY AND CONCLUSIONS. Within the limits of this study with retarded children, the following conclusions seemed valid:

1. Difference in reading achievement gains between groups appeared to be negligible. Significant progress was made, however, by the experimental group during the eight-month period. Thus, it may be concluded that music was of some value to this group.

2. Gains in number ability skills were also without significance statistically, but notable progress was made by each group individually.

3. Though statistical analysis showed no significant gain in either group in those behavior traits which are basic to favorable classroom atmosphere, the writer did note improvement in the experimental group which manifested itself by an increased happiness accompanied by a more acceptable self-concept. These intangible traits were not included in the Check List.

The Development of Special Education for Mentally Retarded Children in the Pittsburgh Diocesan Schools from 1953 to 1958

Sister Mary Donata Koval, V.S.C.

PROBLEM. The purpose of this study was to present an historical exposition of the growth and development of this special educational program in the diocese of Pittsburgh, and to determine to what degree the specialized training offered in this program is an aid to the enrichment of the lives of mentally retarded children.

Specifically, the objectives of the study were: (1) to present a reasonably full and clear statement of the background of the problem; (2) to describe the manner in which the special education program has been carried out; (3) to survey the nature, classification and placement of the retardates in the program; (4) to show progress which has been made.

PROCEDURE. Data were obtained from diocesan records; personal interviews with administrative personnel of the Child Guidance Center, St. Anthony Residential School, and special day classes; and from personal experience in the special education program.

FINDINGS. Analysis of data obtained showed that:

1. More boys than girls have been referred to the Child Guidance Center for testing procedures from 1954 to 1958: boys comprise 64 per cent of the total number while the girls number 36 per cent.

2. The majority of the children fall into the mildly retarded group with intelligence quotients between 50 and 75. The mean of the Stanford-Binet Intelligence Test IQs for the boys is 74.7 with a standard deviation of 13.1, while the mean

IQ of girls is 70.0, with a standard deviation of 12.4. The difference of 4.7 favors the boys. The comparatively high mean shows the type of child serviced by the special classes in the Pittsburgh diocese.

3. The greatest number of children are in the mental age range between 6-2 and 7-7 years. The mental ages of the children at St. Anthony residential school are lower than those of the children in the special classes but this arrangement has been purposely made by the Clinic staff in charge of screening in an effort to facilitate instructional procedures for the special class teacher as well as for the staff at St. Anthony School.

4. Of the total number of 2,427 children tested at the Child Center, 2,132 or 88.1 per cent are educable; while 295 or 11.9 per cent are trainable.

5. The chronological age median decreases each consecutive year in the testing program, indicating that the children in the diocese are being more adequately serviced as the program develops.

6. More boys than girls have been admitted to the ten special day classes: 64 per cent are boys as compared with 36 per cent girls.

7. There is continuous progress shown in the Stanford Achievement Test results administered to the pupils in the special day classes. In the scores presented, gains of 3 months to one year 7 months were made in each subject.

8. A gradual annual increase in number of children are benefiting from the special education program.

SUMMARY AND CONCLUSIONS. On the basis of data regarding the special education training program for the mentally retarded and the slow learner in the Pittsburgh diocesan schools, it was concluded that:

1. The special education program has been accepted as one segment of the total diocesan educational program and,

as a result, the children in the special classes are integrated into the respective school program.

2. An understanding and beneficial relationship has developed between the residential school, the special day classes, and the regular classes for normal children.

3. The Rehabilitation Program is recognized as a part of the special education program but is considered too expensive. After school agency rehabilitates the retarded child, contact is terminated.

4. The special education program has been recognized as part of the community and state organization.

Case Studies Investigating the Similarities and Differences Among Variant Clinical Types of Mentally Retarded

Sister Mary Narcissa Kundinger, O.S.F.

A comprehensive search into the early developmental life, personality and character development, intellectual abilities, achievements, limitations, and future prognosis of the individual child provides knowledge and insight regarding educational implications for the various types of mentally retarded individuals. The results of this study may assist adults in gaining a more accurate knowledge and thorough comprehension of each individual clinical type of mentally retarded child.

PROBLEM. This dissertation sought to investigate the similarities and differences among the variant clinical types of mental retardation through the use of individual case studies of children found in a residential school for the mentally retarded.

PROCEDURE. After thorough examination of individual records and observation of the pupils, twelve children exemplifying various clinical types of mental retardation were selected from among the residents of St. Coletta School for Exceptional Children, Jefferson, Wisconsin. The main factor influencing the selection of cases was the amount of early history available for the specific clinical type. The clinical types included in the study were mongolism, phenylketonuria, hypothyroidism, familial retardation, postencephalitis, brain damage, hydrocephalus, microcephalus, epilepsy, and postnatal brain injury.

The case studies were written according to the following outline: birth and family factors, developmental history, present status and prognosis. After the completion of the case studies, comparisons of similarities and differences among the various types of mentally retarded were stated. This was followed by a comparison of each clinical type with the statements of authorities confined to the areas of early history, causes, treatment, appearance, emotional development, social habits, educational potentialities and achievement, and general well being.

The twelve children selected for the case studies were residents of the St. Coletta School for Exceptional Children from two to twelve years. They ranged chronologically from 10 to 19 years of age, and mentally from 4-4 to 9-0. The range of intelligence quotients was from 41 to 76.

Material for the three areas in which the case studies were written was obtained from direct observation of the children, from interviews with parents, teachers and groupworkers, reports of staff members, admission forms, individual records, reports from doctors and clinics, previous school records and records of psychologists. The investigator has been a member of the staff for the past five years, thus affording contact with the children.

FINDINGS. Similarities and differences were observed among the various clinical cases in each area covered by the case studies.

Birth and Family Factors.—Similarities were observed in duration of pregnancy, the family rank of the retarded child, the number of children in the family and the number of retarded children in each family.

Developmental History.—Similarities were observed in the slow mental and physical development. Retarded speech caused great concern to the parents. They eventually noticed the slow development of the retarded child as compared with the normal children of the family or of other normal children they had known. In all the cases the parents found it necessary to enroll the retarded child in a school of special education. In all cases the mental age was considerably below the corresponding chronological age. All showed poor judgment, lack of insight into a situation, limited ability for telling time, making change, and assuming responsibility. The investigator noted the favorable effect of praise on all the mentally retarded children included in the case studies.

Differences were evident in the detection of mental retardation from the appearance of some of the children, and also in the development of motor skills. The appearance of the mongoloids, the hypothyroid, hydrocephalic, microcephalic, and the child of normal birth with postnatal brain injury gave immediate indication of mental retardation, whereas the remaining cases revealed their retardation while working or conversing with them. The classification of mental ability and achievement varied considerably. Emotionally the children ranged from quiet, passive types to those who were active and aggressive. Socially some children were inhibited while others were forward in social contacts. In providing medication or treatment, differences were evident as some cases could not be treated.

Present Status and Prognosis.—Similarities in all cases indicated that the chronological growth was more advanced than the mental growth. All the children have much need of guidance and direction. All have remained mentally retarded although given the opportunity to develop their innate capacities.

Differences were seen in the level of achievement and rate of progress. Comprehension was on varying levels for the different children. Some of the individuals will be able to hold unskilled jobs whereas the majority will be qualified only for simple chores in the home.

Comparison with Authorities.—In comparing the statements of authors of books on the mentally retarded with the findings of the case studies, a few points of disagreement were found. The advanced age of the mother does not seem to be as important a factor in the cause of mongolism as previously stated by authors. The life span of the mongoloid has lengthened because of modern antibiotics and sulfonamides which have decreased the former high mortality rate.

Physical appearance of the specific clinical types compared positively with the descriptions set forth by authorities. Some children did not show achievement commensurate with innate ability while others did achieve higher than predictions set forth by the authors.

All the children compared positively in their poor judgment, lack of insight into a situation. The authors did not place great emphasis on the need for a well-organized, sequential curriculum to insure direct teaching and training in every aspect of the child's daily life. Limited mention was made of the patient, constant, persistent, continuous, well planned program necessary to stimulate and motivate the individual child to greater utilization of total potentialities. The authors did not mention the happiness a retarded child receives from his own achievements.

Most of the literature stressed the speech difficulties experienced by children of various clinical types. The mongoloids, one brain-injured child, the hydrocephalic with severe aphasic condition, the microcephalic and the child with postnatal brain injury had the most pronounced forms of speech problems in the cases studied. The child with phenylketonuria who did not learn to talk until the age of five years and the hypothyroid case with slovenly speech, exemplified statements of the authorities. Nearly all the children included in the case studies had some defect of speech. In most cases, delay in learning to talk caused concern to the parents and led to the knowledge of mental retardation in their child.

SUMMARY AND CONCLUSIONS. In completing this study some similarities and differences were observed in regard to birth and family factors, developmental history, present status and prognosis of cases studied. The need for optimum training and education of the various clinical types of mental retardation has become more evident. The understanding of each child and consideration for individual needs and aptitudes is recognized as essential to more complete development within individual limitations.

Despite the clinical classification, each retarded child showed the same wants and needs of every human being. All anticipated praise in their desire to please others. Each child studied demonstrated in some manner the urge to achieve recognition for his limited accomplishments.

This study has indicated the need of a positive, constructive program in the special school as an aid to retarded children and their parents in striving for life adjustment.

A History of the Development of a Home Training Program for Children with Mental Retardation in the Philadelphia Archdiocese

Sister Catherine Thomas McManus, M.S.B.T.

PROBLEM. The purpose of this study was to make known certain services initiated to help mental retardates and their families; to ascertain positive influences affecting the retarded environmentally, socially, and spiritually; to explain how patients resident in non-sectarian institutions receive their religious instructions.

Through letters of inquiry to key sources in the states east of the Mississippi River, it was learned that one state, New Jersey, conducted a home training program for 12 years—1943 to 1955. This was the longest period for any one project reported. The program which is the subject of this study has been functioning since 1953. In 1956 the United States Government, under the auspices of the Health Department, had fostered pilot programs of home training for children with mental retardation. However, these programs were incorporated into the services offered through the public health nurse facilities in the areas under study.

The present pattern tends to offer assistance to parents through the various disciplines of clinic staffs of pediatricians, psychologists, therapists, social workers, and health nurses. The pilot programs sponsored by the U.S. Department of Health and a few other reported projects appear to be the main avenues of assistance apart from the professional atmosphere of clinics. In these systems trained personnel can counsel parents in their homes through the agency of home training. The guidance is offered in the light of the clinical findings but according to economic, environmental, physical, social, and personality factors proper to the family under consideration.

PROCEDURE. The information for this study was drawn from reports and records, newspaper articles, personal interviews, letters, experiences in the homes and institutions wherein the writer has been working since the inception of the program. The services rendered in this program were set forth in chronological order. Elements considered included sources of population, contacts in the homes, religious instructions in day centers and in non-sectarian residential schools.

FINDINGS. Information regarding the home training program showed that the counselor aided in: (1) forestalling and/or preventing much family upset after the shock of learning a diagnosis of mental retardation regarding a child; (2) the constructive planning for the retarded child and practical training of him in his daily living; (3) improving the home life of the entire family; (4) encouraging the spiritual growth of all brought to her attention; (5) proffering guidance in the light of the day the child would attend school.

Parents of the mentally handicapped reported that they gained confidence in caring for their child; their child has been trained in a number of ways; guilt feelings regarding necessary decisions in behalf of the child were overcome; in one instance a mental breakdown was averted.

SUMMARY AND CONCLUSIONS. Through the services rendered by the Home Training Program studied, it was concluded that:

Spiritually—parents tend to begin religious practices with their children in early infancy. Therefore, the children are more receptive to the learning situation when formal instructions for the reception of the Sacraments are begun.

Emotionally and environmentally—good habit training of the retardates promotes improved environment in a more relaxed atmosphere in the home.

Economically—the more realistic planning and budgeting of finances regarding the child eases what might become an overwhelming financial strain.

Socially—the trained retarded child fits better into the family unit, encourages good brother-sister relationships, and is more acceptable in school and society.

The Value of Functional Arithmetic in the Teaching of the Number Facts 1 Through 10 to Mentally Retarded Children

Sister Mary Constantia Murphy, R.S.M.

PROBLEM. The main purpose of this study was to determine the value of the functional teaching of arithmetic to mentally retarded children. Meaningful number experiences provided the background for the teaching of the addition facts 1 through 10. Since the functional approach was used in the method, lesson plans were applicable to real life situations.

Specific objectives that were under consideration during the time of the study were: (1) To ascertain to what extent a number program based on immediate experiences, interests, and needs will benefit an educable retarded child; (2) To evaluate the ability of the educable retarded child to learn those aspects of arithmetic which relate to his daily life.

PROCEDURE. The population consisted of 40 mentally retarded children whose mental ages were six and seven years. The pupils were chosen from two day schools for retarded children. Many of the children who took part in the experiment also had a physical disability. These physical disabilities were considered when equating for the experiment took place. The Stanford Binet Intelligence Test, Form L-M and the Primary I, Form A, of the Metropolitan Achievement Test served as the basis for equating the groups. Primary II, Form A, of the Metropolitan Achievement Test was used for final testing.

While the study was being conducted the experimental group was presented the addition facts to 10 through the media of meaningful experiences. Two valuable instruments employed in this procedure were the bulletin board and the display table.

An appendix of the thesis contains six plates depicting the various changes of the bulletin board displays. Each cardboard figure was easily removed from the board and used on the display table. The purpose of this arrangement was to insure their use in the V.A.K.T. Method, which was the method utilized throughout this experiment.

The control group was presented the addition facts through 10 in a factual manner. They did not receive a highly specialized program but were supplied with a good drill and presentation of the addition facts.

FINDINGS. The arithmetic program held great meaning because the number experiences presented to the pupils could be identified with those encountered in daily living.

The experimental group showed significant progress in arithmetic achievement from initial to final testing, as shown by an increase of 1.41 in mean grade score. The t-value of 11.19 was significant at the .001 level of confidence.

Marked progress, significant at the .001 level of confidence, was also made by the control group who showed an increase of .47 in mean grade scores from initial to final testing.

On final testing the mean grade score for the experimental group was 3.13 as compared with 2.25 for the control group. As attested to by a t-value of 4.19, the mean difference of .88 favoring the experimental group was found to be significant at the .001 level of confidence.

Arithmetic grade scores of the experimental group which ranged from 1.6 to 2.5 at initial testing showed a range of 1.6 to 4.0 at the final testing. In the control group the initial range of 1.0 to 3.2 shifted to 1.4 to 3.8 at the close of the study.

Considering the responses of the pupils included in the experimental group, the V.A.K.T. method was a valuable aid in the presentation of the number facts. Motivating factors such as the bulletin board and the display table played an important part in the arithmetic progress achieved by the experimental group.

SUMMARY AND CONCLUSIONS. Practical values resulted when retarded pupils included in the experimental group were able to understand what they were learning. Special consideration was given to methods and materials adaptable to the level of the children's ability and development. Arithmetic presented in a meaningful way held great interest for the retarded pupils studied in this experiment.

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